ORIGINAL

57

2006 Report by Payson Water Co., Inc. on Water Supply Alternatives of It's Geronimo Estates and Elusive Acres Water Systems

December 26, 2006

IN THE MATTER OF THE APPLICATION OF THE WHISPERING PINES FIRE DISTRICT FOR A VARIANCE TO THE MORATOIRUM ON NEW SERVICE CONNECTIONS FOR PAYSON WATER COMPANY'S GERONIMO SYSTEM

ACC Docket No. W-03514A-05-0729

Table of Contents

Schedule of Exhibits

Description of Exhibits	Exhibit Number
Geronimo Estates and Elusive Acres Customer Waiting List (as on December 21, 2006)	1
Whispering Pines Fire District letter dated October 10, 2004	2
ADEQ Water Systems Description	3
Whispering Pines Fire District Exhibit #2	4
Payson Water Co. 2004 ACC Annual Report (page excerpt)	5
MRWRMS Study Area	6
Project Maverick Report	7

Conventions

The following list of abbreviations is used throughout this report.

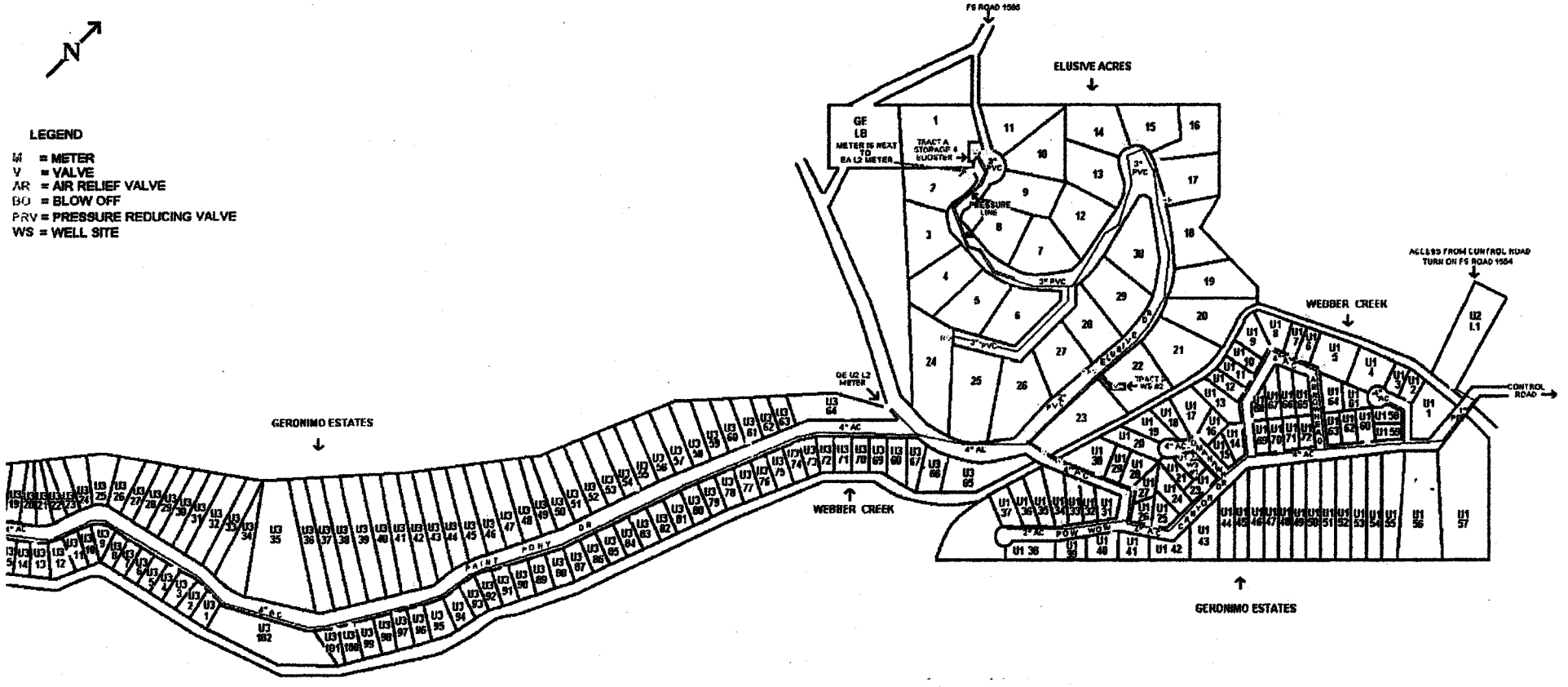
Abbreviation	Description
A.A.C.	Arizona Administrative Code
ACC	Arizona Corporation Commission
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
ALJ	Administrative Law Judge
BOR	U.S. Department of the Interior, Bureau of Reclamation
BUI	Brooke Utilities, Inc.
CC&N	Certificate of Convenience and Necessity
Commission	Arizona Corporation Commission
EA	Elusive Acres
GE	Geronimo Estates
Gila Co.	Gila County
GPM	Gallons per minute
MB	Myndi Brogdon, Customer Relations Representative, Brooke Utilities
MRWRMS	Mogollon Rim Water Resources Management Study
PSWID	Pine-Strawberry Water Improvement District
PWCo.	Pine Water Co.
PYWCo.	Payson Water Co., Inc.
RMU	Remote Monitoring Device
RTH	Robert T. Hardcastle, President, Brooke Utilities, Inc.
SRP	Salt River Project
SWCo.	Strawberry Water Co.
TOP	Town of Payson
USFS	U.S. Forest Service
USGS	U.S. Geological Survey
WPFD	Whispering Pines Fire District


Pine, az
Milk Ranch LLC Well
Whispering Pines
Geronimo Estates/Elusive Acres
87
Flowing Springs
East Verde Park Estates
Mesa del Caballo
Star Valley
260
Streaming 100%


Webber Tank
Cow Canyon
Control Rd
Fire Tank
Spring
Estate Tank
3053
N. 458
N. 440
Pot Hole Tank
Geronimo Estates/Elusive Acres
Rock Tank
Streaming 100%

GERONIMO ESTATES
AND
ELUSIVE ACRES

SYSTEM ID 04-028 ROUTE 1050
POE 001 WS #1 15,000 GALLON STORAGE
POE 002 WS #2 AT ELUSIVE ACRES TRACT A



FOR REFERENCE ONLY

EXECUTIVE SUMMARY

In its Decision No. 68696 dated May 5, 2006 the Arizona Corporation Commission was asked to consider the application (the "Application") of the Whispering Pines Fire District whereby they sought a variance from the Commission's prior Decision No. 57584 dated October 11, 1991 that limited PYWCo.'s predecessor to serving not more than sixty (60) customers in it's GE water system. That prior Decision was based on an even earlier Decision of the Commission dated September 18, 1981 (Decision No. 52454). Brooke Utilities, Inc. was authorized in Commission Decision No. 60972 to acquire the GE water system as part of its consolidation of several water companies in August 1996.

During many years prior to BUI's ownership of the GE and EA water systems the Commission has properly recognized that water sources sufficient to meet the needs of all property owners in these areas was difficult, if not nearly impossible, to locate and deliver. Further, the Commission has historically properly recognized that, because of the small number of water customers in the GE and EA water systems, it would be extremely difficult for existing and prospective customers of the areas to economically afford the cost of extensive improvements that may be associated with such a solution.

Decision No. 68696 approved the Applicant's request for variance for one meter. In accordance with that Decision, Payson Water Co. timely installed the water service connection. Further, the Commission approved the installation of eight (8) additional water meters that were based on Staff's analysis of the available water supply. This additional meter variance was granted pursuant to a prescribed chronologically established waiting list whereby water service candidates were required to qualify by proof of property ownership and the attainment of a residential building permit timely issued by the Gila County Building Department. The building permit component of this Decision extended the approval duration from 45 days to 60 days from the date of customers placement on the meter waiting list. The Commission's extension of this building permit approval period was based on a request by Gila County's Community Development Director that building permits could routinely be processed within the extended period of time.

In accordance with this portion of the Decision, Payson Water Co. continues to manage the meter waiting list established by the Decision. The meter waiting list currently includes twenty-four (24) applicants of which six (6) total meters have been installed (see EXHIBIT #1). In addition, two additional meters are scheduled for installation pending satisfaction of the building department requirements of the Decision. At least three (3) meter waiting list customers were excluded from service connections because they either could not meet the building permit requirements of the Decision or they requested expulsion from the list. As of November 2006, eighty-eight (88) meters were connected to the GE water system and total metered consumption was 99,525 gallons for the month.

Payson Water Co. also provides additional data and explanation to resolve the issue related to disputed production capacity of its source water wells at the GE water system. Payson Water Co. provides additional information concerning the feasibility and cost estimates of drilling one or more shallow water wells to supplement the existing water supply. Payson Water Co. also provides additional information concerning the feasibility and cost estimates of drilling a deep well or wells in the GE water system in order to further support the water supply of its customers. Payson Water Co. also provides analysis of other reasonable water supply alternatives that include further analysis concerning the operational and economic elements of these solutions.

Payson Water Co. concludes that water supply alternatives may exist but are very expensive, risky as it relates to sustained yield production, and have potentially serious economic consequences to a small number of ratepayers regardless of the success of the exploration and/or development.

I. WATER SYSTEM DISCUSSION

A. Background

The water supply problems related to PYWCo.'s GE and EA water systems pre-dates BUI's ownership by at least fifteen years. Since initial development of the subdivisions in approximately the mid-1960's the water system has been plagued by low productivity, few customers, undeveloped lots, remote proximity to surface water sources, and an unforgiving ground water supply. After more than forty years this area has approximately eighty-eight customers that are paying for water services based on a rate and tariff schedule from 1986. According to Harry Jones', representative of the Whispering Pines Fire District, letter of October 10, 2004 the "Geronimo community" serves more than 250 lots (see EXHIBIT #2). PYWCo. believes that approximately 262 total lots are represented in the GE and EA water systems. Thus, the GE and EA water systems are approximately one-third developed after more than forty years.

B. Financial Performance

According to the financial records of PYWCo. the average monthly revenues generated by all GE and EA customers since January 2000 are approximately $1,593. Monthly revenues have exceeded $2,000 in only one month (July 2000) since January 2000. Annual revenues for these water systems approximate $18,900.

C. Operational Performance

PYWCo.'s GE and EA water systems are served by two ground water sources. The original ground water source (GE) was developed in 1965 and the second ground water source was developed in 1986 (EA) (see EXHIBIT #4 and Applicant's Exhibit #4 in this Docket). These two water systems are interconnected and operate as one water system. For the purposes of ADEQ the interconnected water systems are recognized as a single public water system (PWS#04-028). The water sources are drilled to a depth of 160 feet and 200 feet respectively and lined with steel casing. According to PYWCo.'s 2005 ADEQ Emergency Operations Plan ("EOP") the static water level of both the GE well and the EA was 75 feet (see EXHIBIT #3).

During the period 2000 through 2006 the wells of GE and EA have provided service as indicated in Table 1.0 below:

Table 1.0

Year	Gallons of Consumption
2000	2,057,263
2001	2,133,555
2002	1,589,669
2003	1,888,889
2004	1,894,992
2005	1,896,403
2006	1,819,297 [1]

[1] Data projected through December 2006.

Similarly, PYWCo.'s GE and EA water system reports well production for the period April 2005 through December 2006 as shown in Table 2.0 below:

Table 2.0

Month/Year	Gallons of Production
April 2005	78,280
May 2005	122,170
June 2005	227,580
July 2005	185,090
August 2005	158,960
September 2005	149,876
October 2005	198,500
November 2005	75,450
December 2005	107,760
January 2006	98,600
February 2006	113,730
March 2006	162,610
April 2006	67,580
May 2006	163,620
June 2006	283,120
July 2006	241,410
August 2006	191,610
September 2006	138,610
October 2006	150,610
November 2006	155,033
December 2006	165,337[2]
Average Monthly Production	146,901

The average monthly production calculated in Table 2.0 above equates to production of 3.4 GPM over an entire month. In ACC Staff's report it was calculated that the existing seventy-seven (77) customers had a demand of 13.31 GPM[3]. Water system production submitted by PYWCo. at the same time indicated aggregate production of 16 GPM. On October 28, 2005 a field visit to the GE and EA water system observed aggregate production of 24 GPM. Staff went on to report that it "did not believe that this pumping rate could be sustained for a prolonged period of time"[4].

As reported in this Docket a Hearing was conducted on February 8, 2006. As part of their presentation, the Applicants provided its EXHIBIT WFPD #2 indicating "Known Wells Drilled in Geronimo Estates Since 1988" (see EXHIBIT #4). This exhibit indicates property owners names, the date well drilling was completed, and the measured production, in GPM, at the time of development. It is clear from the data provided in the Applicant's EXHIBIT #2 that the production levels of PYWCo.'s wells at GE and EA are approximately consistent with the production of other private wells in the area.

---

2 Data projected through December 2006.

3 ACC Staff Report dated December 21, 2005 at page 2, first paragraph.

4 *Ibid*, page 2, first paragraph.

The water sources at PYWCo.'s GE and EA water systems have operated with a high level of operational reliability for many years. In 2005 and 2006 operational "up" time exceeded 99%[5]. The water systems of GE and EA are in compliance with the water quality requirements of ADEQ.

(1) Applicant's Disputed Well Production of WPFD EXHIBIT #4:

During the Hearing of February 8, 2006 the Applicants presented information and alleged unused well production capacity of PYWCo.'s GE and EA water wells. Besides the witness questions asked during the Hearing, the Applicants presented information from PYWCo.'s 2004 ACC Annual Report that indicated much higher levels of water production from the GE and EA wells (see EXHIBIT #5). Accordingly, the presiding Hearing Officer directed PYWCo. as follows:

- *"..... we expect the Company to submit a report in this docket no later than December 31, 2006, including supporting documentation addressing, at a minimum: the pump yield discrepancy raised by WFPD Exhibit #4 ....."*.

As part of the presentation the Applicant's provided a convoluted mathematical calculation describing PYWCo.'s avoidance of available water production in support of their contention that the need for a water meter moratorium has been an operational and regulatory fiction of PYWCo. and ACC for more than thirty years. The Applicants asserted that the unused capacity of the EA well, ***by itself***, nearly exceeded the aggregate average monthly production of ***both*** wells as shown in Table 2.0 above. The Applicants went on to assert that the EA water well was the "the best well of two" and was determined to be operational less than three hours daily.

During the Hearing the Applicants could provide no explanation or understanding of PYWCo.'s possible motivation to (i) sell less water, (ii) purposely decrease its revenues, (iii) serve fewer customers, and, (iv) in effect, sell less of its product than it was capable of doing so. A witness for the Applicant also offered that he "had no interest in 5 GPM wells". At the same time, the Applicants admitted that they had no experience in actually operating public water system in Arizona under regulatory jurisdictions.

As has been too often the case in previous regulatory disputes, customer complaints, hearings, and the like it has been BUI's experience that layman representatives of water customers in Northern Gila County sometimes become so zealous in their beliefs that they ignore obvious facts, operational limitations, limitations in their actual experience, and field conditions. For example, ACC Staff witness Mr. Olea completely discounted the usefulness of WPFD EXHIBIT #1 in calculating the unused capacity of the GE and EA water wells. Mr. Olea concluded that the presentation does not consider peak-day demand and, instead, indicates WPFD's conclusions are erroneously based on average monthly production. Mr. Olea describes the calculation of peak-day demand as the correct and appropriate method of designing and analyzing available water system capacity and a method

[5] "Up" time representing the percent of functional annual service.

not used by the Applicant's in their WPFD EXHIBIT #1. Mr. Olea went further to discount the usefulness of WPFD EXHIBIT #2 as well because it does not describe the basis upon which the well capacity is calculated (see Decision No. 68969, at page 7, at lines 11 through 17).

The issue raised by the Applicants may not be a discrepancy at all. In fact, the operational nature of water wells in Northern Gila County makes the conclusion reached in PYWCo.'s 2004 Annual Report entirely plausible and likely accurate. The basis of this conclusion has several components. **First**, WPFD incorrectly understands well production as reported in the Annual Report to be a constant level of water production that could be measured and observed at any time. WPFD does not consider when well measurements are taken, recorded, reported, or if a mathematically extrapolated production level is used for the Annual Report. The Annual Report provides no instructions and requires no such explanations. WPFD's conclusion that, because the report lists well production levels of 24.1 GPM for the EA well and 36.6 GPM for the GE, an observation of well production *at any time during the year* should correlate to this data. Obviously, this fundamental understanding is wrong. Water well production in Northern Gila County is a highly transmissive, fluctuating, and an unpredictable natural resource. It is entirely plausible that well production measurements of the GE and EA wells, as properly recorded on the Annual Report, were precisely accurate at the time of measurement. **Second**, WPFD incorrectly understands well production data, as reported in the Annual Report, because few ground water sources in Northern Gila County have any level of production for a sustained period of time. ACC Staff's Report alludes to this same condition. Staff properly reports that it does not believe that high levels of well production in this area are sustainable for "prolonged periods of time"[6]. Staff is correct in this conclusion. Well production in Northern Gila County, and in particular shallow wells, fluctuates widely. Most shallow water wells in the area are located in local geological fractures where water production is a function of the amount of water contained within the fracture. A nearby well located in a different fracture could have completely different production characteristics. A third nearby well located in another separate fracture frequently has well production that is different from any other well. This is not an uncommon operational feature of the area. Thus, at the time of measurement, well production of the GE and EA wells, as recorded in the Annual Reports, is likely correct and accurate. **Third**, wells in Northern Gila County commonly have decreased production over sustained periods of operational duration. It is not unusual to observe well water production that decreases rapidly over brief periods of time. Accordingly, the longer a well continually operates a lower level of water production should be expected. This is another reason why well management in Northern Gila County is a demanding and complex occupation. A diligent water operator must be armed with large amounts of data, reporting documents, field observations, and operating experience to understand, and preferably forecast, well production relative to (a) expected customer demand, (b) other wells operating in the area, and (c) the duration of operation of any well. Water operators for BUI are highly skilled at this technique referred to as "resting wells". Simply, when wells are not operated continuously they are allowed to regain source water for

---

6 Staff Report, December 21, 2005, page 2, first paragraph and Decision No. 68696, page 7, footnote 4.

subsequent production. It can be a delicate balance between regulatory obligations of the water company, production wells and the operational duration of one well as compared to another. **Fourth**, in addition to "resting wells" water operators frequently manually restrict limit water production discharge from the well pump by means of "gating back" control vales. This technique prevents wells from over drafting themselves and suctioning too much air where water may not be available. Thus, from this technique a well with a control valve in the completely open position might temporarily yield 20 GPM but would be expected to steadily decrease production over time. By using "gating" of the well control valve an operator is able to manage lesser production of the well through operational control of the well by restricting output and water introduction into the system. Measurement of well production for wells subject to these conditions could be entirely accurate, but very different, depending on when measured. Absent the technique of "gating back" of wells, and due to the unpredictability of water production in the area, it would be nearly impossible to manage water supplies. It could be said that almost any well production data recorded on ACC Annual Reports is, by itself, meaningless without additional substantial documentation.

Conclusion: WPFD's ascertain that excess water production is available from GE and EA based on the 2004 Annual Report filing is simplistic and incorrect. As a commercial enterprise, PYWCo. has no motivation to sell less of its product. There is likely no reporting discrepancy at all. In order to use such information in a meaningful way a great deal of additional information is needed beyond that reported in the Annual Reports.

D. Stakeholders

The individuals or entities identified as having a vested interest in a long-term water supply solution for PYWCO and its customers in Pine, Arizona are identified as follows:

- Customers of PYWCo.'s GE and EA water systems
- ACC Utilities Division Staff
- ADEQ
- ADWR
- BOR
- Gila Co.
- USFS

E. Water Loss

For the period April 2005 through September 2006 PYWCo. reports calculated water loss in its GE and EA water systems to be 10.1%. For the period April 2005 through September 2006 PYWCo. expects to report water loss in its GE and EA water systems to be approximately 9.8% and for 2006 PYWCo. expects to report water loss in its GE and EA water systems to be approximately 9.4%.

F. MRWRMS Meeting and Discussion Accomplishments

Representatives of PWCo. have met frequently with various local and regional groups to discuss water supply alternatives, including most importantly, the regional discussions of the MRWRMS study group. The MRWRMS Study Group meets approximately monthly and consists of a broad cross section of participants and representatives from the water interested stakeholders.

MRWRMS has defined its area of study to include the Northern Gila County, Arizona area as indicated in EXHIBIT #6. The MRWRMS study area is bordered to the west by the Gila County boundary and the north again by the county boundary and the Mogollon Rim. The eastern boundary is Christopher Creek and the southern boundary is the Gila County boundary at or near latitude N 34_ 09'. The study area encompasses 632 square miles.

MRWRMS Study Partners include the Bureau of Reclamation, Town of Payson and Gila County. Other parties represented in the study group include the Tonto Apache Tribe, Gila County participants (i.e. County Authorized Water Improvement Districts), and private water utilities including BUI. All of these parties are experiencing the same essential problem with respect to having a sustainable water supply. Each party is learning that insufficient winter precipitation results in insufficient recharge of local aquifers and shortages of required water supplies. This limitation on existing water supplies is hindering future community growth and economic development. To satisfy these needs, each study partner is seeking new sources of water to provide for their respective communities' current and future water demands. It is common knowledge among these participants that water systems in Northern Gila County are frequently short of water during the summer months, providing the most dramatic example of the water deficiency in the area.

In the past, each party sought to develop their own water supply without the participation of the other study partners. Now the study partners have found it both unwise and impractical to develop water supply projects independent of each other. As a consequence, the MRWRMS study partners are seeking to share vision and resources in an effort to develop suitable regional alternatives to fulfill their water resource needs. A key example is the Blue Ridge Pipeline study being sponsored by TOP. TOP has contracted an engineering firm, Black and Veatch, to provide a cost estimate for the pipeline and facilities needed to bring water from Blue Ridge Reservoir to Payson. As a component of that study Change Order #1, approved by the TOP Council, will specifically estimate the cost of an additional pipeline and plant to bring water to Pine via USFS Control Rd. 32 and north on Highway 87 very near and immediately in front of the entrance to the GE and EA water systems. After PSWID declined to fund the cost of the Change Order #1 proposal, BUI agreed to reimburse TOP for the cost of this work because of the clear benefit to PYWCo. and it's other customers.

Initially, MRWRMS expected to have a completed document by the end of 2005 including a needs assessment, a demand analysis and a set of draft alternatives ranked by order of feasibility. This document will review a compiled history of the region, identify the problem, discuss the hydrogeology of the area, review surface water rights, review ground water rights, usage and quality, identify the ability of the current resources to meet the current and future demands, identify legal and institutional concerns regarding water, discuss management techniques, includes the master plans of the study partners, identify the most feasible alternatives and support them with hydrological and geological data. This completed document will be pressed to congressional representatives along with requests for federal funding

In subsequent years, MRWRMS expects to drill exploratory holes in the Northern Gila County area to verify the hydrogeologic work that has been accomplished. This information will be primarily used to substantiate the feasibility of specific alternatives in the request for federal funds. This information will also be shared with all of the partners with the intent to benefit any and all who can use this information in their own master plans.

In sum, through the MRWRMS study, hydrogeological information that was costly for one entity to procure has become available to all of the study partners. This information remains to be tested both by individual members, including BUI, and study partners and the group as a whole. Under any circumstances, members have benefited from the shared statistical information. Moreover, this study group has provided a forum in which to launch discussions about alternatives.

In its Decision No. 68696 the Commission required the filing of this Report and additional monthly reports regarding water consumption and production reports to fully inform itself of as much data and information as possible as it relates to the water supply challenges in Northern Gila County including the water systems at GE and EA. In this regard, all parties expected the MRWRMS peer review process to be completed by this time. It was expected that the MRWRMS study could be used as basis to determine the hydrogeologic and economic feasibility of drilling deeper water wells in the area. Unfortunately, the MRWRMS study has not been released as the peer review parties involved have not completed their work. It is BUI's understanding that the peer reviews of the MRWRMS study report will not be completed until at least mid-2007.

II. ANALYSIS OF ALTERNATIVE WATER SUPPLIES IN PAYSON WATER CO.'S GERONIMO ESTATES AND ELUSIVE ACREAS WATER SYSTEMS

In its Decision No. 68696 the Commission required PYWCo. to consider various supplemental water supply alternatives, as follows:

> (1) *the feasibility and cost estimate of drilling one or more shallow wells in or around the GE system to bolster the existing limited water sources;*
>
> (2) *the feasibility and cost estimate of drilling a deeper well or wells in the GE system area as a means of obtaining a permanent source;*
>
> (3) *any other alternatives that may be available as a means to provide service to all requesting customers in the Company's CC&N area.*[7]

The discussion that follows directly considers each of these directives. However, it should be noted that PYWCo. has regarded the language of the Decision indicating "any" alternatives not to include alternatives that are illegal, unreasonable, or have no hydrological or practical purpose. Some of those alternatives were discussed in the *"2005 Report by Pine Water Co. on Water Supply Alternatives"* (the "Pine Report") dated November 2005 and could be considered in this Report as well. Some of these topic areas include:

- Development of above ground mass storage facilities
- Well exploration on public lands

---

[7] ACC Decision No. 68696, page 11, item 25, lines 1 through 9.

- Water hauling
- Cessation of further subdivision development
- Legislative alternatives
- Condemnation of existing local ground water supplies

These water supply alternatives, while potentially practical, do not represent viable water supply alternatives because natural resource limitations, USFS public policy[8], impracticality, or the duration required. These water supply alternatives may be worthy of note but the alternatives considered on the following pages represent, in the opinion of PYWCo., the most practical and viable water supply alternatives for the customers of the GE and EA water systems.

It should also be considered that, during the Hearing on February 8, 2006 and the subsequent Open Meeting of the ACC Commissioners on May 5, 2006, all parties expected the MRWRMS research study to be complete and available for evaluation by the end of 2006. This study group product is expected to shed light of the availability of deep ground water resources in the Northern Gila County area. Unfortunately, the MRWRMS report is not available and is not expected to be available until later in 2007 when the peer review process is complete.

It is also worthy of note that the few number of customers in the GE and EA water systems makes consideration of risky and expensive capital investment projects much more difficult as the burden of paying for *successful or unsuccessful exploration and development projects* ultimately is likely the responsibility of existing ratepayers. The small number of customers prevents the cost amortization of such projects over a wider base of people without sizeable economic effect of existing customers. For many years, BUI has stated that **any hydrological solution to water supply problems that creates a different but equally serious economic problem is no solution at all**. If customers have an abundance of a product they cannot afford they are no better off. At some level the price of water does not justify incremental increases in quantity.

The following water supply alternatives should be regarded carefully. Any reading of these water supply alternatives should carefully consider that projections of water production, capital investment, elimination of existing moratoriums, approved water connections, and other related matters are subject to a stringent regulatory process with an uncertain conclusion. Water development is an especially risky and expensive undertaking in Northern Gila County. It should also be clearly understood that development of water sources using the process and projections described herein provides no assurance of success or actually delivering economically justified quantities of water. Regardless of whether sufficient water quantities were delivered or not, PYWCo. would seek accelerated recovery of all investment capital expense from existing ratepayers.

Alternative #1: Additional Shallow Wells

This water supply alternative considers three currently owned private properties where development has not yet occurred. These sites represent different locations, topography, but have similar hydrogeological potential and approximately equivalent access to existing water system infrastructure. Two sites could accommodate an additional water storage tank of up to 75,000 gallons. All sites are located within the existing water system boundaries and would require perpetual easements or acquisition. This water supply

[8] Meeting with USFS District Ranger, Payson Ranger District, on December 21, 2006 indicated the USFS will no longer consider exploration of water resources on USFS lands prior to every other reasonable and practical alternative being considered.

alternative considers drilling shallow wells[9] in each location. It is likely that wells sited on each property could yield similar hydrological results at 200 feet in depth as they would at increased depths. It is likely that each prospective site would be equipped with a steel cased six inch bore and five horsepower well pumps and motors. It is likely that any well site developed in conjunction with a storage tank would require an additional five horsepower booster station and pneumatic pressure tank. To the best of PYWCo.'s knowledge, three phase electrical utility does not currently exist at any of the sites and may not otherwise be available. According to two different well drilling companies there is no reason to believe that a well developed under this water supply alternative would have a high probability of exceeding production levels in excess of PYWCo.'s existing wells or those wells referred to in EXHIBIT #4 or approximately 6 to 10 GPM. If all three sites were fully developed it is possible that as much as 20 to 30 GPM (approximately 40,000 gallons daily) could be developed. There is no reason to believe that each prospective well site would require water operations management other than the type and nature of existing wells. An advantage of this alternative is that exploratory risk and development of individual wells sites is partially mitigated by consideration of more than one site.

Estimated Cost (each):	$70,000 (includes complete well and site development)
	$50,000 (estimated land acquisition costs)
	$200,000 (water storage tank, connection infrastructure and equipment)
	$ unknown (site power development costs)
	$ unknown (environmental qualification report)

Total Estimated Cost:	$320,000 (not less than)
Total Estimated Cost (all):	$760,000
Annual Operating Costs:	$45,000 (estimated and based on the development of three phase power)
Annual Operating Costs (all):	$135,000 (estimated and based on the development of three phase power)
Scope of Benefit:	Customers of GE and EA water system only
Monthly Ratepayer Impact:	$109 (estimated not less than)[10]
Annual Ratepayer Impact:	$1,308 (estimated not less than)

Discussion:

If successful, three prospective well sites could produce as much as 40,000 gallons of water daily. This production projection is based on "gating back" wells to a level that reaches sustained yield over prolonged periods of time. Using the ACC Staff calculation example contained in the Staff Report in this Docket[11] it is assumed that each additional 10 GPM of sustained yield water production would permit 58 additional meter connections. Thus, if the development of three well sites produce an aggregate of 25 GPM as many as 145 additional service connections could be considered for installation. Any reading of this water supply alternative should carefully consider that projections of water production, capital investment, elimination of existing moratoriums, approved water connections, and other related matters are subject to a stringent regulatory process that is uncertain and impossible to predict. Water well exploration and development is a very risky proposition in Northern Gila County. It should also be clearly understood that exploration of water using the process and projections described herein

---

9 Generally defined as wells less than 400 feet deep.

10 Capital investment as shown by each water supply alternative would be subject to approval by ACC and included in the rate base of PYWCo. following an application for permanent changes in rates and tariffs. The outcome of any rate proceeding is unknown which could result in monthly and annual ratepayer costs being different than those shown.

11 ACC Staff Report dated December 21, 2005, page 1, fifth paragraph.

provides no assurance of actually finding economically justified quantities of water. Regardless of whether sufficient water quantities were discovered or not, PYWCo. would seek accelerated recovery of all investment capital expense from existing ratepayers.

Alternative #2: Deep Well Drilling Project

This water supply alternative proposal involves an appropriate available site within the area of the GE and EA water systems. The availability of such a site has not yet been determined. The project plan would propose to drill a 12 inch well bore approximately 1,450 feet deep in the immediate area. The project plan would include a bore equipped with a suitable pump set at approximately 1,400 feet capable of delivering at least 100 GPM. It is likely that complex and expensive property negotiations are required to either acquire ownership or access to an appropriate site. This site requires being coordinated so that suitable three phase power supplies are available to ensure economical operation of the site. The site would require being adequately sized to accommodate a sizeable water storage tank at least 100,000 gallons in capacity. Additionally, it is possible that water rights and environmental concerns with local interests and SRP may have to be resolved. Absent further conclusive information from the MRWRMS group study it is unknown whether any site in the service area of the GE and EA water systems would hydrologically qualify as a prospective site capable of the water production required. A disadvantage of this water supply alternative is that high risk is not mitigated by consideration of multiple well sites.

Estimated Cost:	$850,000 (includes complete well and site development)
	$50,000 (estimated land acquisition costs)
	$200,000 (water storage tank, connection infrastructure and equipment)
	$ unknown (site power development costs)
	$ unknown (environmental qualification report)
	$ unknown (legal and regulatory costs)

Total Estimated Cost:	$1,100,000 (not less than)
Annual Operating Costs:	$45,000 (estimated and based on the development of three phase power)
Scope of Benefit:	Customers of GE and EA water system only
Monthly Ratepayer Impact:	$158 (estimated not less than)[12]
Annual Ratepayer Impact:	$1,896 (estimated not less than)

Discussion: This water supply alternative analysis risks development of a single high production well without the mitigation of additional alternative sites. These risks primarily involve the following areas: (1) unknown hydrological capacity conditions at the water system site; (2) limited number of customers across which to amortize investment capital; (3) water rights challenges from third parties inclusive of legal costs; (4) prohibitive economic conditions; and (5) unknown legal and regulatory costs associated with this alternative. If successful this water supply alternative would produce not less than 100 GPM or as much as 144,000 gallons daily. This production projection is based on "gating back" the well to a level that reaches sustained yield over prolonged periods of time. However, there is no assurance that sustained yield can be achieved under this water supply

[12] Capital investment as shown by each water supply alternative would be subject to approval by ACC and included in the rate base of PYWCo. following an application for permanent changes in rates and tariffs. The outcome of any rate proceeding is unknown which could result in monthly and annual ratepayer costs being different than those shown.

alternative. Using the ACC Staff calculation example contained in the Staff Report in this Docket[13] it is assumed that each additional 10 GPM of sustained yield water production would permit 58 additional meter connections. Thus, it is projected that 100 GPM could provide for a sufficient number of additional meter connections to allow the GE and EA subdivisions to fully develop. Any reading of this water supply alternative should carefully consider that projections of water production, capital investment, elimination of existing moratoriums, approved water connections, and other related matters are subject to a stringent regulatory process that is uncertain and impossible to predict. Water well exploration and development is a very risky proposition in Northern Gila County. It should also be clearly understood that exploration of water using the process and projections described herein provides no assurance of actually finding economically justified quantities of water. Regardless of whether sufficient water quantities were discovered or not, PYWCo. would seek accelerated recovery of all investment capital expense from existing ratepayers.

Alternative #3: Blue Ridge Reservoir Control Road #32 Pipeline and Water Treatment Plant; Also Known as Black & Veatch Engineering Study Change Order #1

This water supply alternative is an adjunct to Alternative #7 in the Pine Report (see Report, page 21) that was originally proposed by the TOP. This alternative proposes to provide 500 acre feet of Blue Ridge Reservoir water delivered over the nine month period annually that SRP operates the turbine pumps. This proposed alternative intersects the proposed 20 inch pipeline connecting Blue Ridge Reservoir and TOP at a location near Washington Park. A sufficiently sized pipeline (i.e. likely 8 inch diameter) could be developed in a south-southwesterly direction to intersect with USFS Control Road #32. The pipeline would transverse Control Road #32 to the west approximately 17.4 miles intersecting with Highway 87 and providing an outlet for the GE and EA water systems at a convenient location. The pipeline would proceed north in an ADOT Highway 87 right-of-way to Pine approximately another four miles to a water treatment plant for which a site has not been designated. The proposed pipeline would require no less than three pump lifting stations in order to move the water to higher locations as it proceeds along Control Road #32 and Highway 87. The Black & Veatch Change Order #1 cost estimate associated with this proposed water supply alternative was originally considered and subsequently declined by PSWID. BUI agreed to reimburse TOP $10,022 for the Change Order #1 work completed by Back & Veatch. The Black & Veatch cost estimate[1] does not include estimated annual operating costs, environmental report costs related to USFS requirements for use of Control Road #32, SRP costs of Blue Ridge Reservoir water, and distribution system costs incurred by either Pine Water Co. and/or PYWCo. The cost of wholesale water from SRP and delivered to TOP's pipeline has not been finalized. This water supply alternative is generally similar to Option #1 of Alternative #7 of the Pine Report discussed herein except that Black & Veatch's Change Order #1 has more precisely considered the cost impact of this alternative. It should be noted that the PSWID concludes that this alternative is not a viable option for Pine and Strawberry but should "held open for future consideration as a long-term secondary source" of water supply. An advantage of this alternative is that little additional cost would related to a water supply outlet connection being provided for the GE and EA water systems.

Estimated Cost: $16,855,000 (Black & Veatch Change Order #1)

---

13 ACC Staff Report dated December 21, 2005, page 1, fifth paragraph.

Estimated Cost:	$600,000 (environmental report costs, SRP water purchase costs, and PWCo. water system distribution costs)
Total Estimated Cost:	$17,455,000
Annual Operating Costs:	$100,000 estimated
Monthly Ratepayer Impact:	$ unknown
Annual Ratepayer Impact:	$ unknown
Monthly Ratepayer Impact:	$ unknown
Scope of Benefit:	Pine, Strawberry, and the GE and EA water systems of PYWCo.

Discussion: This water supply alternative is conceptually practical and possible from an engineering and operational perspective. The proposed pipeline could deliver up to 500 acre feet (approximately 162 million gallons) over the nine month period that SRP plans to operate the facility. This Northern Gila County allocation is part of a 3,500 acre feet annual capability of Blue Ridge Reservoir. It is PYWCo.'s understanding that the 500 acre feet allocated to Northern Gila County would be made available on a "as available" basis provided that TOP received all of the remaining 3,000 acre feet allocation from SRP. There is no guarantee that annual precipitation would yield water stores of this level on an annual basis. Obviously, the most serious problem associated with this alternative is the prohibitive cost and impact to ratepayers. This level of economic burden far exceeds the capability and expectations of a limited number of ratepayers. For this reason PYWCo. believes this water supply alternative fails to provide a reasonable hydrological and economic solution to the water supply deficiencies of Pine, Strawberry, and the GE and EA water systems of PYWCo. Any reading of this water supply alternative should carefully consider that projections of water production, capital investment, elimination of existing moratoriums, approved water connections, and other related matters are subject to a stringent regulatory process that is uncertain and impossible to predict. Water development is a very risky and expensive proposition in Northern Gila County. It should also be clearly understood that development of water using the process and projections described herein provides no assurance of actually delivering economically justified quantities of water. Regardless of whether sufficient water quantities were delivered or not, PYWCo. would seek accelerated recovery of all investment capital expense from existing ratepayers.

Alternative #4: Camp Geronimo Water Diversion, Control Road #32 Pipeline, Water Treatment Plant; Internally Also Known as "Project Maverick"

This alternative was originally brought to the attention of BUI on August 24, 2005 by water representatives of Gila Co. It seems that approximately a year previously representatives of the Camp Geronimo Boy Scout Camp had been contacted by Gila Co. concerning excess water supplies from Poison Springs just south of the Mogollon Rim located on USFS property. The actual water source is located approximately two miles from the Boy Scout camp. Camp representatives estimated that approximately 80 GPM flowed from Poison Springs into an above- and below ground pipeline that connected to the Camp. The Camp representatives indicated that an additional approximate 50 GPM was captured from Herron Springs located in the nearby vicinity. The water source is aggregated into four 15,000 gallon water storage tanks where it is treated with excess water returning downstream to Weber

Creek. Camp Geronimo estimated annual use of only 2,100,000 gallons during a nine week summer period. Gila Co. represented that 20-50 GPM of excess water may be available for purchase and distributed to either (a) PYWCo.'s GE and EA water systems, and/or (b) Pine. The Camp Board of Directors is managed by an environmental water attorney located in Phoenix. The Camp expressed interest in the commercial sale of the water to the Geronimo Estates or Pine customers of BUI. A representative of USFS Tonto National Forest was contacted and indicated that confusion existed regarding Camp Geronimo's water rights claims for the water from Poison Springs and Herron Springs. The USFS explained that it might be "possible but not likely" that a commercial pipeline could be developed across USFS lands for the Geronimo Estates customers or along Control Road #32 for supplemental supplies to GE, EA, and Pine similar to that provision under Alternative #3 herein.

Estimated Cost:	$17,400,000 (estimated but minimum)
Estimated Cost:	$1,000,000 (estimated environmental report requirements, commercial water costs, and water system infrastructure costs)
Estimated Cost:	$18,400,000 (total)
Annual Operating Costs:	$150,000 estimated
Annual Ratepayer Impact:	$ unknown
Monthly Ratepayer Impact:	$ unknown
Scope of Benefit:	Pine, Strawberry, and the GE and EA water systems of PYWCo.

Discussion:

Beginning in early September 2005 BUI's representatives began researching the possibilities of this water source for (a) customers of PYWCo.'s GE and EA, and (b) as a supplemental water source for Pine using USFS Control Road #32 is a manner similar to that proposed in Alternative #8 herein. An internal report (i.e. deemed "Project Maverick") was developed concerning the possible water source (see EXHIBIT 7). Currently, PYWCo. serves approximately 77 customers in GE and 13 customers in EA. According to representatives of Camp Geronimo the water rights connected with this supply pre-date the area water rights of SRP. This understanding of water rights standing has not been acknowledged or confirmed by SRP. An extensive environmental report may be necessary to satisfy downstream water rights holders from Weber Creek including USFS. PYWCo. and/or Pine Water Co. would pay Camp Geronimo a commercial wholesale water fee for access to this water. According to SRP Camp Geronimo could only provide excess wholesale water to PYWCo. and/or Pine Water Co. to the extent they could demonstrate a reduction in beneficial and historical use. Thus, it appears that not more than 5 to 10 acre feet per year would be available from the Camp Geronimo water source. PYWCo. estimates the cost of this project would be at least equal to those indicated in Alternative #3 exclusive of environmental assessment reports, commercial wholesale water costs, and additional delivery infrastructure necessary to connect Camp Geronimo to an appropriate location on Control Road #32. PYWCo. estimated these additional costs could easily exceed $1,000,000. It seems extraordinarily unlikely that a project of this financial magnitude would be affordable by customers of GE and EA. Any reading of this water supply alternative should carefully consider that projections of water production, capital investment, elimination of existing moratoriums, approved water connections, and other related matters are subject to a stringent regulatory

process that is uncertain and impossible to predict. Water development is a very risky and expensive proposition in Northern Gila County. It should also be clearly understood that development of water using the process and projections described herein provides no assurance of actually delivering economically justified quantities of water. Regardless of whether sufficient water quantities were delivered or not, PYWCo. would seek accelerated recovery of all investment capital expense from existing ratepayers.

Alternative #5: Bray Creek Ranch Water Diversion, Control Road #32 Pipeline, Water Treatment Plant; Internally Also Known as "Project Maverick"

This alternative was originally brought to the attention of BUI at the same time Alternative #4 was considered. It seems that at the same time the Camp Geronimo water supply alternative was learned by Gila Co. that this additional water supply source was further considered as well. The Bray Creek Ranch property is located at approximately the same elevation as Camp Geronimo but approximately 1-1/2 miles east and north of Control Road #32. The property is owned by a limited liability company comprised of several doctor and lawyer members. Two old houses are located on the property in additional to a meadow and pond. BUI contacted managing member representatives of Bray Creek Ranch to investigate this potential water source. Bray Creek Ranch estimated the water flow from natural springs at 40 to 50 GPM. Bray Creek Ranch currently has a commercial wholesale water contract with a bottled water distributor in Phoenix. The distributor uses water tenders to truck water from the source to its Phoenix facilities for filtration and processing. Bray Creek Ranch expressed concern about the viability of the commercial water sales contract as the distributor has recently experienced operational and financial difficulties. USFS is aware of the "bottled water contract" and, likewise, expressed concern that it is "possible but not likely probable" that a commercial pipeline could be developed across lands for use by GE, EA, or Pine Water Co. customers. Bray Creek Ranch indicates that a prior application to the USFS was denied for development and construction of a pipeline from their property to intersect with Control Road #32 for commercial use by the bottled water contractor.

Estimated Cost:	$17,400,000 (estimated but minimum)
Estimated Cost:	$1,200,000 (estimated environmental report requirements, commercial water costs, and water system infrastructure costs)
Estimated Cost:	$18,600,000 (total)
Annual Operating Costs:	$150,000 estimated
Annual Ratepayer Impact:	$ unknown
Monthly Ratepayer Impact:	$ unknown
Scope of Benefit:	Pine, Strawberry, and the GE and EA water systems of PYWCo.

Discussion: Beginning in early September 2005 BUI's representatives also began researching the possibilities of this water source for (a) customers of PYWCo.'s GE and EA, and (b) as a supplemental water source for Pine using USFS Control Road #32 in a manner similar to that proposed in Alternative #3 herein. An internal report (i.e. deemed "Project Maverick") was developed concerning the possible water source (see EXHIBIT #7). Currently, PYWCo. serves approximately 77 customers in GE and 13 customers in EA. According to representatives of Bray Creek Ranch the water rights connected with this supply pre-date the area water rights of SRP. This water rights standing has not been confirmed with SRP. An extensive environmental report may be necessary to satisfy downstream

water rights holders including USFS. PYWCo. and/or Pine Water Co. would pay Bray Creek Ranch a commercial wholesale water fee for access to this water. According to SRP Bray Creek Ranch could only provide excess wholesale water to PYWCo. and/or Pine Water Co. to the extent they could demonstrate a reduction in beneficial and historical use. Bray Creek Ranch disputes SRP's calculus of the amount of beneficial and historical water use. PYWCo. estimates the cost of this project would be at least equal to those indicated in Alternative #3 exclusive of environmental assessment reports, commercial wholesale water costs, and additional delivery infrastructure necessary to connect to an appropriate location on Control Road #32. PYWCo. estimated these additional costs could easily exceed $1,000,000. On two separate occasions in 2006 representatives of BUI collected water samples that were submitted to testing laboratories in Phoenix. On each test date at least three separate points of entry to the water system were sampled. Both batteries of tests reported high levels of *e.coli* and fecal coliform contamination. BUI advised representatives of Bray Creek Ranch in writing that a resolution to the water contamination issue would be required before PYWCo. or Pine Water Co. could further consider this alternative as a viable supplemental water source. It seems extraordinarily unlikely that a project of this financial magnitude would be affordable by customers of GE and EA. Any reading of this water supply alternative should carefully consider that projections of water production, capital investment, elimination of existing moratoriums, approved water connections, and other related matters are subject to a stringent regulatory process that is uncertain and impossible to predict. Water development is a very risky and expensive proposition in Northern Gila County. It should also be clearly understood that development of water using the process and projections described herein provides no assurance of actually delivering economically justified quantities of water. Regardless of whether sufficient water quantities were delivered or not, PYWCo. would seek accelerated recovery of all investment capital expense from existing ratepayers.

Alternative #6: Water Sharing Agreements with Existing Water Well Owners

In 1998 BUI developed the idea of contracting with private property well owners (i.e. "Partners") to either (a) buy excess water from existing well production, or (b) drill new wells on private property. To date, Strawberry Water Co. and Pine Water Co. have entered into approximately twelve Water Sharing Agreements with Partners and the total water production from these sources has provided a critically important source of water to the communities of Strawberry and Pine for many years. These agreements have a twenty year term with automatic renewal provisions in five or ten year increments. Partners are paid a monthly fee for the actual water metered from the water source pursuant to a rate schedule that is the same for each water sharing agreement Partner. Newly developed wells on private property are developed and constructed at water company expense with operating agreements over many future years. Obviously, newly developed water wells must be sufficiently productive to repay the cost of the well development as well as provide water sales revenues pursuant to the applicable water company tariffs. SWCo., PWCo., and PYWCo. have made it widely and publicly known that they are interested in numerous additional Partner wells for this purpose.

Estimated Cost: $55,000 (per newly developed well site)

Annual Operating Costs:	$1,800
Annual Ratepayer Impact:	$ unknown
Monthly Ratepayer Impact:	$ unknown
Scope of Benefit:	GE and EA water systems

Discussion:

This water supply alternative can be highly attractive if connection to existing, producing water sources can be made. The issue becomes one of available sustained water production volume. This water supply alternative is less attractive if new wells must be developed as discussed in Alternative #1 above. PWCo. has been very successful in utilizing this water supply option during the past ten years. However, the substantial disadvantage of this option is that few private property owners seem to be interested in becoming Water Sharing Agreement Partners with PYWCo. because they fear de-watering a private, presently exclusive water source. A further disadvantage of this water supply alternative is that the number of Partners required would need to be significant in order to overcome the volume of deficient water production as discussed by this Report. The permit process, ADEQ approval process, and development process of these water sources has nearly tripled in the last two years because of additional requirements constantly being placed on these sources of supplemental water supplies from regulatory agencies. Currently, BUI has secured approval from a private property owner in Strawberry to develop a six-acre parcel in a good prospective well drilling location from which PWCo. expects to use an existing well currently located on the property and develop at least three more wells each producing 10-15 GPM and able to supply water to customers of SWCo. and PWCo. Any reading of this water supply alternative should carefully consider that projections of water production, capital investment, elimination of existing moratoriums, approved water connections, and other related matters are subject to a stringent regulatory process that is uncertain and impossible to predict. Water development is a very risky and expensive proposition in Northern Gila County. It should also be clearly understood that development of water using the process and projections described herein provides no assurance of actually delivering economically justified quantities of water. Regardless of whether sufficient water quantities were delivered or not, PYWCo. would seek accelerated recovery of all investment capital expense from existing ratepayers.

Docket Number W-03514A-05-0729
ACC Decision Number 68696

Meter Requests as of May 15, 2006

Order Requests were Received	Date	Time	Property Owner Name	Mailing Address	Location of Service Request	Site Information VL/UC/ER
1	5/23/2006	1pm	Ray Di Silvestro	HC8 Box 424, Payson AZ 85541	GE U2 L51 Paint Pony	Pemit provided
2	6/7/2006	12:46pm	Randy Bonds	3908 W Lone Cactus Dr Glendale Az 85308	GE EA L 29	removed meter 12/04/06
3	6/12/2006	1:16 AM	Joe Stapp	6960 E Gary Circle, Mesa, AZ 85207	GE L38	home already built
4	6/29/1930	2:56pm	Medina, Irene	106 W Illini, Phoenix, AZ 85051	GE U1 L9-10	Permit provided
5	7/13/2006	10:27am	Jason Kirk	2443 N Raven Cir, Mesa, AZ 85207	GE EA L 28	removed meter 12/04/06
6			James MacKensize	428 E Thunderbird Rd, Phoenix, AZ 85022	GE U3 L56	did not qualify
7			John Swanson	4841 W. Mercer Ln, Glendale, Az 85304	EA L8	Permit provided
8	8/7/2006	10:30am	Mayne, David	7446 E June St., Mesa, AZ 85207	GE EA L9	moved to #24 not able to do at this time
9	8/8/2006	11:57 AM	Smith, Martha S	1749 S El Camino Dr. Tempe AZ 85281	GE U3 L79	VL
10	9/5/2006	10:19AM	Carlbloom, Rollin	2206 Remington Dr, Chandler Az 85248	GE U1 L40-47-48-49-50	Parcel #302-14-052-f
11	9/8/2006	12:18 PM	David Garbarino	17005 E De Anza Fountain Hills AZ 85268	GE U3 L86	ER
12	9/11/2006	10:01AM	Yetter, Richard	2247 E Mallory Cir Mesa AZ 85213	GE U3 L63	VL
13	9/11/2006	10:49AM	Marriott, Marie & Michae	3006 E Cypress Phoenix Az 85008	GE U2 L29	
14	9/11/2006	2:51PM	Reed, Nancy	2367 E Devencort Gilber Az 85296	Elusive Acres L19	
15	9/12/2006	12:22PM	Allen, Harold	1755 S Sierra Vista Dr Tempe AZ 85281	GE U2 L37	
16	9/14/2006	9:44 AM	Gerken, Steven	18736 E Pine Valley Dr Queen Creek Az 85242	GE L34	VL
17	9/18/2006	2:54PM	Davies, Steven & Darlene	8208 E Obispo Ave Mesa Az 85212	GE EL 27	
18	9/22/2006	9:29 AM	Jensen, Rose	9810 N 1st st, Phoenix, AZ 85020	GE L32 1414 Paint Pony	ER
19	10/10/2006	2:23pm	Doris, Gerald	443 N Alma School Rd Mesa AZ 85201	GE U2 L13	
20	11/1/2006	10:36am	Komerdelj, Aca	15621 E Telegrahp Dr Fountain Hills Az 85268	EA L17	
21	11/20/2006	10:00am	Allen, Bruce	2328 Bridgewater Ct, Orange Park, FL 32003	GE L42	VL
22	11/30/2006	2pm	Tellman, Fred	Po Box 174, Tonopah AZ 85354	GE L32 1414 Paint Pony	
23	11/30/2006	2pm	Tellman, Fred	Po Box 174, Tonopah AZ 85354	GE L33	
24	12/19/2006	3:29 PM	Mayne, David	7446 E June St., Mesa, AZ 85207	GE EA L9	
25						

EXHIBIT #1

EXHIBIT #2

WHISPERING PINES FIRE DISTRICT

HC8 Box 701A • Payson, Arizona 85541 • Telephone (928) 474-3088 • Fax (928) 472-3392

repeated

October 10, 2004

Chairman Marc Spitzer
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007

Commissioner William A. Mundell
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007

Commissioner Kristin K. Mayes
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007

Commissioner Mike Gleason
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007

Commissioner Jeff Hatch-Miller
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, AZ 85007

RE: Brooke Utilities, Inc.'s Denial of Water Meter to New Fire Station

Honorable Commissioners:

Your recent increased attention to rural Arizona water issues and particularly to the issues with Brook Utilities, Inc. in nearby Pine is appreciated.

Whispering Pines Fire District, located 12 mile north of Payson, covers the communities of Whispering Pines, Rim Trial, Geronimo Estates, and the Camp Geronimo Boy Scout facility, each surrounded by the Tonto National Forest. We members of the Board of Directors of the District are obligated to provide facilities, equipment, and staff to directly serve approximately 644 sub-divided parcels, 385 homes, 12 miles of Forest roadways, 162 full time residents, and up to 800-1000 Boy Scouts 8-9 weeks per year. In addition, when we are not committed elsewhere, we generally provide structural fire, wild land fire, EMT, paramedic, and mutual aid services to Bonita Creek, Verde Glen, Cowan Ranch, Beaver Valley and other neighboring communities outside the District.

Our fire department has grown significantly the last three years in terms of equipment, facilities, and service. Within a month, we will complete our first substation, a new building in Geronimo Estates, which will allow us to house two apparatus in that community (near the Scout Camp) which is five miles from our main station. Response time to that area will be dramatically reduced.

Our concern, and reason for seeking your assistance involves the attached letter from Brooke Utilities, which confirms their denial of a water meter at the new

building, as requested in our Chief's letter also attached. The new building is a simple truck barn, with no restroom and no kitchen, but it is a facility that needs water to minimally wash mud off the steps of fire trucks and to hose off a fireman or EMT staff member that may have come in contact with hazardous materials or blood during the performance of their life saving efforts.

We at the fire District have been fully aware of the 23-year moratorium on water meters in the Geronimo community, which has only 68 meters to serve over 250 lots. At our main fire station in Whispering Pines (also served by Brooke Utilities' Payson Water Co. subsidiary), we have suffered all this summer with Stage 4 conservation measures. We have been out of water on numerous occasions and low on pressure much of the summer. At the new Geronimo sub-station, we have not requested a meter to run a social hall or a full time fire station, nor to have water to fight fires. We only asked for a meter for simple cleanup and safety procedures. We understand some residents or lot owners with a pending meter request for 23 years might be upset with a meter allocated to a hose bib at the fire station. However, most residents would support this minimal level of water availability for their fire/medical services.

With about 25% of *our* citizens liv*ing* in Geronimo Estates, we are aware of some residences on two or more lots with a meter on each lot, with the homeowner willing to have one unused meter removed and re-allocated to the fire department. We are also aware that over the last twenty or so years, numerous residents (about 13-one in the last month) have successfully drilled their own wells and obtained enough water for their own homes. We are not aware of any efforts on the part of Brooke Utilities to explore for more water so that the 23-year meter moratorium could be lifted. We realize the Commission had been asked to provide "guidance" to Brooke's Pine water Co. related to new water, and that the ACC could not do this, but wisely required them to participate in regional water development efforts. Any required effort for developing new water resources should be extended to include the Geronimo and Whispering Pines communities.

We do not understand why some divisions of Brooke Utilities are required by the Commission to haul water when local resources are inadequately developed (Pine Water Co.) or why other divisions of Brooke (Payson Water Co.) have hauled water voluntarily (such as at Whispering Pines which was short of water many times this summer), while at the same time they are allowed to "just not serve" Geronimo Estates to the degree no one can have a new meter for 23 years and the fire department is not even allowed to have a meter for a simple hose bib. Your CC&N requires reasonable efforts to serve the certificated areas granted.

Therefore, we respectfully request that the Commission do the following:

- Require Brooke to immediately allocate a water meter to the new Geronimo fire station.
- Require Brooke to immediately haul water to Geronimo when other resources are inadequate.

- Lift the complete moratorium on meters in Geronimo Estates and allow a gradual increase in meters as new water resources are reasonably developed, and specify that if additional water resources are not quickly developed, Brooke should be required to meet such demands by hauling water at their own costs.
- Require Brooke to immediately fund reasonable water exploration and storage efforts so that the Geronimo community can grow to a point that the tax base in that community can further support the needed fire and emergency service efforts provided by our District.
- Require Brooke, during a severe fire incident, to allow our fire staff emergency access to up to 25% of the potable water stored in Geronimo Estates (to allow time for our other tender trucks to arrive from the main station). To date they have refused to allow a tap on their tank up the Elusive Hills road (which road is too steep to handle our water tender trucks) or to allow a drop line with a secure hydrant at the bottom of the road.

Please let us know how we can resolve this service issue without making a formal challenge to their Certificate of Convenience and Necessity. If you have questions or need more information from us, please contact our Board Member Harry Jones at the above address or by calling (928) 595-1111.

Cordially,

For the Whispering Pines Fire District Board of Directors

By Harry D. Jones, Board Member

CC: Robert Hardcastle
Mistie Jared
Brooke Utilities, Inc.
P.O. Box 82218
Bakersfield, CA 93380-2218

EXHIBIT #3

System Description

Name of Water System: Geronimo Estates/ Elusive Acres
Public Water System No.: 04-028
Number of Service Connections: 84 (Meter Moratorium in Effect)

This system consists of two (2) ground wells, two (2) chlorinators, one (1) 15,000 gallons storage tank, one (1) 12,000 gallons storage tank, two (2) 3-HP booster pumps and a distribution system. The water system is classified as a community water system.

Sources

Well 1:

ADWR No.	55-621336
POE	001
Address:	Geronimo Estates Unit 1 Lot 22
Well Type:	Non-exempt
Well Depth:	160'
Depth of Casing:	unknown
Type of Casing:	6" Steel
Depth to Water:	75'
Pump Set at:	unknown
Date Drilled:	appx. 1965
Chlorinator:	Yes
Well Meter No:	60119314
Well Meter Size:	5/8" X 3/ 4"
Well Meter Model:	Sensus

Well 2:

ADWR No.	55-515318
POE	002
Address:	Elusive Acres Tract 6
Well Type:	Non-exempt
Well Depth:	200'
Depth of Casing:	150'
Type of Casing:	6" Steel
Depth to Water:	75'
Pump Set at:	unknown
Date Drilled:	12-20-1986
Chlorinator:	Yes
Well Meter No:	60119315
Well Meter Size:	5/8" X 3/ 4"
Well Meter Model:	Sensus

Storage Tank location(s)	12,000 gallons at GE u1 L22 15,000 gallons at EA Tract B
Pellet Chlorinator Location(s)	GE U1 L22 and EA Tract B
Booster Pump location(s)	Two 3-HP at GE L22

WTPD Ex. 2
EXHIBIT #4

Known Wells Drilled
In Geronimo Estates Since 1988
(as reported by Van Herrick)

Name	Date	GPM
Robert Boehme	June, 2000	3.0
John Landis	April 2000	3.0
Robert Smolenski	July 1999	4.0
Joseph Huen	May 1988	5.0
Guy Dryer	June 1988	7.0
Van Herrick	March 1996	5.0
Janet Weber	July 1997	5.0
Gary Eagleton	August 1995	4.0
Joe Brown	April 1998	1.0
Liebe Vanderzweep	Jan 1998	2.0
Connie Stojanovic	Aug 1998	4.0
Katherine Christensen	June 1988	1.0

EXHIBIT #5

D-6 2004

COMPANY NAME: Payson Water Co., Inc.

WATER COMPANY PLANT DESCRIPTION
WELLS

ADWR* ID No.	Description	Pump HP	Pump Yield (GPM)	Casing Depth (Feet)	Casing Diameter (Inches)	Meter Size (Inches)	Year Drilled	Arsenic Levels (mg/L)
55-645162	Gisela	5	72.0	52	6	2	U/A	0.0030
55-086809	DC 1 Deer Creek	2	32.5	240	6	¾	1985	0.0054
55-512278	DC 2 " "	5	3.9	280	6	1	1985	0.0054
55-621332	EV 1 East Verde	1.0	5.5	190	8	¾	1958	0.005
55-621335	EV 2 "	0.5	2.0	165	8	¾	1955	0.005
55-518599	EV 3 "	2.0	6.2	100	6	1	1987	0.005
55-515318	EA	2.0	24.1	200	6	¾	1988	0.0025
55-631115	FS Flowing Spring	1.0	10.5	150	5	¾	1980	0.0031
55-621336	GE Geronimo	1.0	36.6	155	6	5/8	1965	0.0013
55-644405	MR Mont Park	2.0	4.1	20	8	¾	U/A	0.002
55-631113	Mesa Del	5.0	8.4	550	6	¾	1977	<0.001
55-500270	Mesa "	2.0	4.0	450	6	¾	1981	<0.001
55-801698	Mesa "	2.0	0.0	400	6	¾	U/A	<0.001
55-801699	Mesa "	1.0	4.0	200	6	¾	1973	0.0017
55-631112	Mesa "	1.0	4.0	250	6	3/4	1973	0.0017
55-513409	Mesa "	3.0	5.70	408	6	¾	1986	0.0011
55-556148	Mesa "	2.0	9.50	400	6	¾	1996	<0.001
55-501381	QV	1.5	0.0	105	6	5/8	1981	<0.001
55-605247	SV Star Valley	2.0	22.80	100	8	¾	1960	<0.001
55-519703	SV " "	2.0	19.10	200	6	¾	1980	<0.001
55-538696	TK Knolls	1.5	0.0	300	6	2	1993	<0.001
55-548773	TK Knolls	15.0	140.0	240	6	3	1996	<0.001
55-621333	WP Whispering	1.0	15.5	100	6	¾	1965	<0.001
55-621334	WP	2.0	10.3	50	8	2	1960	<0.001

* Arizona Department of Water Resources Identification Number

OTHER WATER SOURCES

Name or Description	Capacity (gpm)	Gallons Purchased or Obtained (in thousands)
JO Water Sharing Agreement (PWS 04-030)	14.6	7,337
ECC Water Sharing Agreement (PWS 04-030)	25.0	9,124
Intercompany water hauling via tanker from Star Valley (PWS 04-037) to East Verde (PWS 04-026)	N/A	102
Intercompany water hauling via tanker from (PWS 04-037) to Whispering Pines (PWS 04-039)	N/A	107

WPPD #4

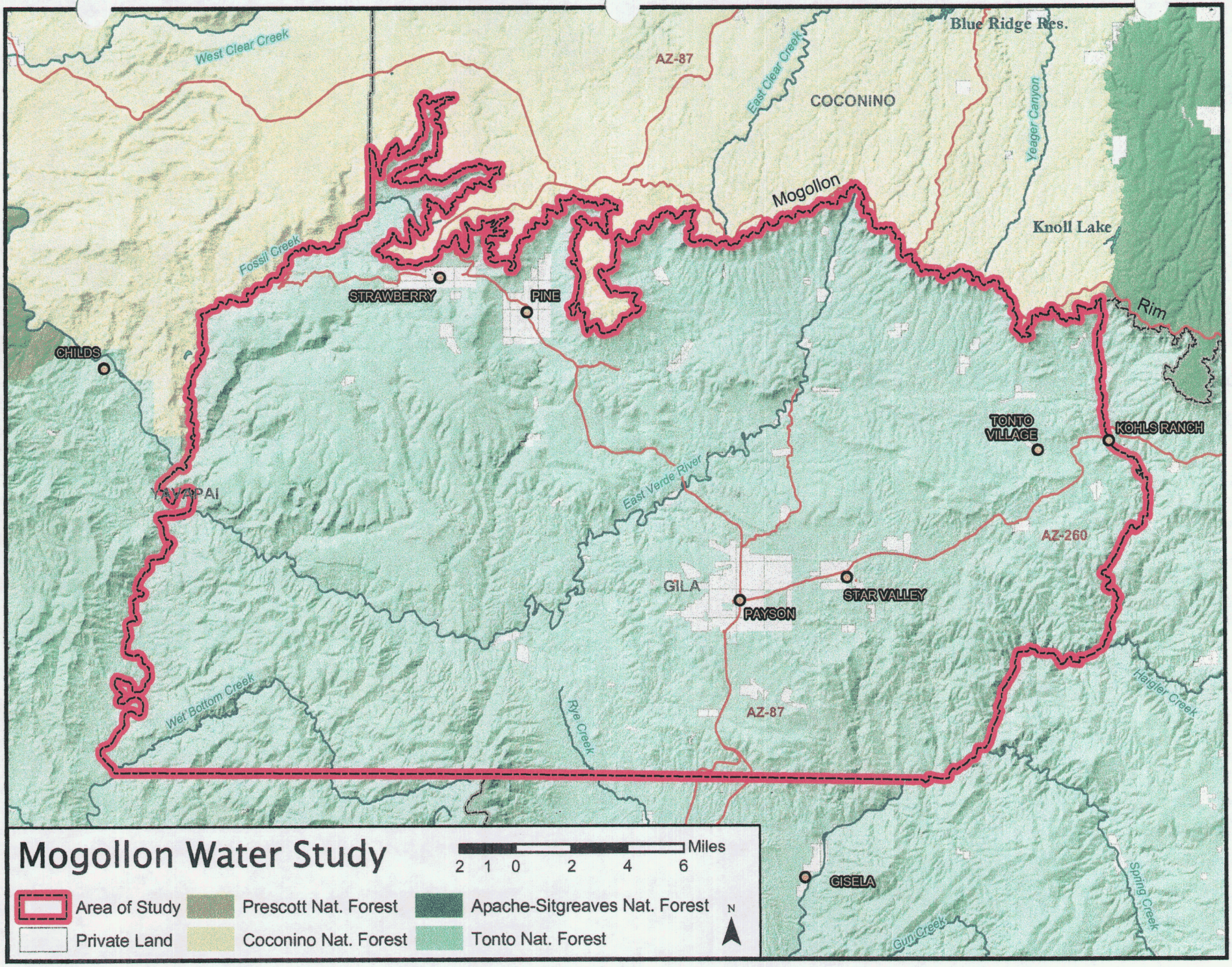

Mogollon Water Study
Miles
2 1 0 2 4 6
Area of Study
Private Land
Prescott Nat. Forest
Coconino Nat. Forest
Apache-Sitgreaves Nat. Forest
Tonto Nat. Forest
N
West Clear Creek
AZ-87
East Clear Creek
COCONINO
Blue Ridge Res.
Yeager Canyon
Knoll Lake
Mogollon
Rim
Fossil Creek
STRAWBERRY
PINE
CHILDS
YAVAPAI
East Verde River
TONTO VILLAGE
KOHLS RANCH
AZ-260
GILA
PAYSON
STAR VALLEY
Wet Bottom Creek
Rye Creek
AZ-87
Haigler Creek
GISELA
Spring Creek
Gun Creek

EXHIBIT #6

EXHIBIT #7

FILE COPY

Project Maverick

Preliminary Evaluation for: Brooke Utilities, Inc

October 5, 2005

Lake at Camp Geronimo Boy Scout Camp, used for camp activities such as canoeing.

Information brought to Brooke Utilities, Inc (BUI's) by Harry Jones, water information specialist for Gila County brought about this preliminary study of the possibility of gaining water from Camp Geronimo, operated by the Boy Scouts of America and Bray Creek Ranch, a private residence owned by a partnership for use in the Geronimo Estates and Elusive Acres areas.

Geronimo Estates currently has 70 meter connections and Elusive Acres has 13 for a total of 83. Both are under a complete meter moratorium. According to Gila County the potential build out will not exceed 260 home sites, 30 in Elusive Acres and 230 in Geronimo Estates.

This report is strictly a preliminary look at evaluating the water source, and cost of its availability. Further evaluation is necessary to determine sustainability and quality.

AVAILABILITY

Both Camp Geronimo (CG) and Bray Creek Ranch (BCR) have a surface water right that predates Salt River Project's water right.

Each entity has voiced an interest in selling 'excess water' to BUI. What they define as excess water is water they are allowing to run into surface creeks after they take what they need for the property. This water is not available to these entities to sell. It would require further research into downstream rights holders, primarily United States Forest Service (USFS) and Salt River Project (SRP). Both of these agencies have indicated that is 'possible but not probable' and would likely involve a Central Arizona Project (CAP) trade and an extensive Environmental Assessment of the creeks affected.

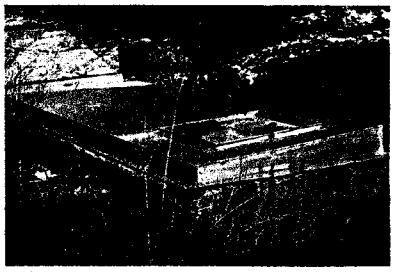
BUI would then be paying CG and/or BCR for the use of their facilities to capture this 'excess water' – in effect paying twice for a water source.

To make water available for sale to BUI, CG and/or BRC would have to prove a historical and beneficial use on the property. Then they would have to prove a reduction in that use. That reduction would be the only right they would be able to sell to BUI. To effect that sale SRP would have to oversee and approve a 'sever and transfer' of the water right from them to us. This requires going before the Board of Directors with the information and request.

In an estimate of water available to these two alternatives, CG estimates a possible 5-10 acre feet per year available to BUI, of again what they call 'excess water'. BCR estimates 30-40 gpm coming from Bray Creek without much in the way of monitoring or metering what has been in use on the property. Both of these figures are rough estimates that would require closer scrutiny as to how much is truly available based on the criteria set forth above.

CG has plant in place that captures most of the water from Horton Creek and Poison Creek* sending the water via a two and a half mile, 4" pipeline to storage tanks at the Camp. This pipeline is above and below ground, making it very susceptible to breaks, freezing and other hazards. Each spring feeds a different set of storage tanks.

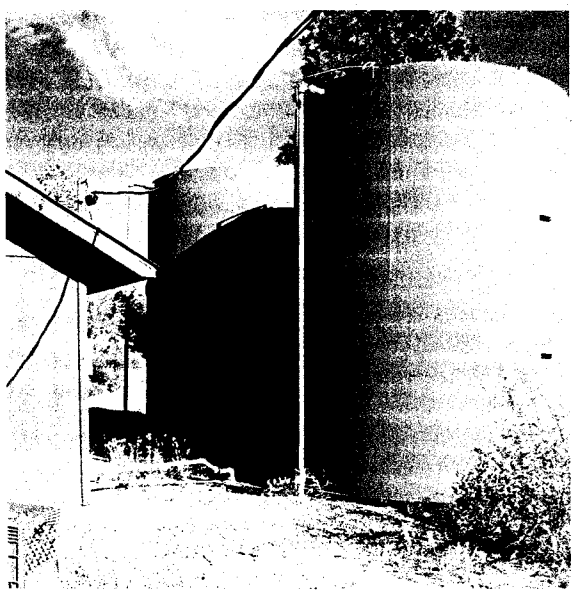
Horton Creek feeds the camp hosts personal home and small pond and has no existing treatment facilities.



Spring Box at Horton Creek

Storage tanks for Horton Springs

Spring Box at Poison Creek



Storage tanks and treatment facility for Poison Springs

Poison Creek (also known as Geronimo Creek) feeds into another system that feeds the main camp. Before being distributed to the users at the camp the water travels through a filtering plant and chorine is added. Camp officials state this exceeds current ADEQ standards. This system exists because the majority of their users are children. The unused water fills a lake on the property being used for camp activities.

The plan as they see it is for us to utilize their plant connecting the two storage systems into one, in effect treating all the water and connecting a pipeline for BUI at the Poison Springs storage tanks.

The pipeline would conceptually follow the camp road for two miles, cross the Control Road (a forest service road deemed an archeological/historical site per USFS this adds a lot of cost to the project) and continue for another 1 to 1½ miles to a connection site into the BUI systems. This requires an Environmental Assessment (EA) of the area with one of the biggest obstacles being identified as the crossing of the Control Road.

BCR has less plant available and has been attempting to create pipelines to sell bottle water off of this site with little to no luck. Creating a pipeline here for BUI purposes would be a greater hurdle to cross at a much greater cost for less available water.

COST –

Based on the amount of legal, operations, engineering and administrative work necessary, rough estimates run $10,000 to $50,000 just to determine the legal availability, sustainability, water quality and the ability to transport water from these sources.

An EA for the CG pipeline would take two to three years at best and cost in the "tens of thousands of dollars" according to USFS with the outcome unpredictable. The assessment for a pipeline from BCR was deemed even less likely to be approved and more costly based on distance and the amount of interference with the Control Road.

Cost for plant materials have been estimated at $30 per foot for an 8" pipeline running approximately 3 miles or 15,840 feet equaling $475,000.

- SUMMARY

Costs for this project would very likely exceed $500,000. This does not include the charges from either CG or BCR for the use of their plants and/or cost of water or ongoing costs of maintaining the system.

While attractive in its ability to solve a long-term water shortage in the Geronimo Estates and Elusive Acres developments this project lacks economic feasibility. At best this development will have 260 meter connections, less than half of which will be full-time residents.

Respectfully Submitted,
Myndi J. Brogdon
Community Relations Consultant
Brooke Utilities, Inc.

RESOURCES

Harry Jones, Water Information Specialist Gila County
Rod Byers, Lands/Minerals Staff Officer United States Forest Service
Greg Cornrupp, Senior Analyst Water Rights & Contracts,
Salt River Project
Mogollon Rim Water Resources Management Study
Eric Heiser, , Environmental Water Quality Attorney and Board Member in charge of facilities for the Grand Canyon Council of Boy Scouts of America, the camp owners.
Ted Juilius, Camp Geronimo Site Manager
Mike Johns, Bray Creek Ranch owner, partner.

**** Did you know that there are over 100 springs in Arizona named 'Poison Springs'? Early ranchers did this in hopes that other settlers would think the springs dangerous and not use them.***